DNR INLAND FISHERIES MONTHLY REPORT MARCH 2010

March Feature
Inland Fisheries Open Houses

The following is a summary of the press release regarding the Inland Fisheries spring Open House events to discuss potential regulation changes for 2011, current management issues and key topics of interest. Fisheries is using the Open House format this spring because it allows greater opportunities to interact with the public and answer more in-depth questions on a more personal level.

Inland Fisheries Regulations Open Houses 2010

Everyone is invited to join DNR staff for our Open Houses and enjoy light refreshments while learning about and discussing the future of Maryland's inland fisheries. The purpose of the open houses is to present the 2011 regulatory options for inland fishing in Maryland and to welcome questions and comments from the public. The Open Houses will be held at the following times and locations:

Monday, April 12 from 5 to 8 p.m.
Appalachian Laboratory, 301 Braddock Road, Frostburg, MD
Wednesday, April 14 from 3 to 6 p.m.
Seneca State Park Visitor's Center, 11950 Clopper Road, Gaithersburg, MD
Monday, April 19 from 3 to 6 p.m.
Visitor's Center of Cedarville Natural Resource Area, Cedarville, MD
Tuesday, April 20 from 3 to 6 p.m.
Glenwood Branch Howard County Library, 2350 State Route 97, Cooksville, MD
Wednesday, April 21 from 3 to 6 p.m.
Natural Resources Police Eastern Region Office, Area 2, Route 309 and 404, Hillsboro, MD

A series of informational posters will be available to clarify the regulatory options.

Changes under consideration include:

- Adjust the legal opening hour for put-and-take trout fishing areas to a later starting time.
- Remove the special catch and return designation from the Seneca Breaks area of the Potomac upstream to the mouth of the Monocacy to make it consistent with standard state regulations.
- Adjust the upper catch and return boundary of the North Branch of the Potomac to the new overhead cable and red bank pole closer to the dam.
- Remove Herring Run, Gwynnbrook Pond, Prettyboy Reservoir, and Liberty Reservoir from the put-and-take trout fishing list
- Adjust the lower boundary of the Trophy Trout Fishing Area (limited to artificial lures and flies) on the lower Savage River from the mouth of the river upstream to the Route 135 bridge.
- Restrict fishing to the west bank (park side) of Catoctin Creek in the delayed harvest trout fishing area within Doubs Meadow Park at Myersville.
- Remove closure dates on put-and-take trout fishing areas in Cunningham Falls Lake, Blair's Valley Lake, and Greenbrier Lake to allow fishing for trout and other species in March.
- Increase the allowable number of hooks per fishing line from two to three.

- Prohibiting the feeding of wildlife in Fisheries Management Areas.

We have also put together posters covering hot topics such as:

- The state of blue and flathead catfish populations.
- Whirling disease and Didymo updates, and associated cleaning techniques for gear
- The elements of scented and unscented plastic lures.
- DNR's initiatives to increase youth and family fishing opportunities.
- Savage River and Reservoir restoration
- DNR's brook trout tagging study.
- Patapsco River watershed dam removal
- Tidal largemouth bass status and issues

Environmental Review and Resource Protection

- Inland Fisheries staff participated in a resource mapping meeting in Annapolis. The purpose of the mapping is to develop a mapping system that contains information on freshwater fish species that are rare, threatened, endangered, or in need of conservation. Staff will identify waters containing fish populations that fall into one of these categories and will provide GIS coordinates to be used to denote the population on a computer mapping system. This mapping system will allow DNR to share information on sensitive fish species with Maryland Department of the Environment and other regulatory agencies that have functions that impact these species.
- The Lewistown staff worked with the National Park Service (NPS) and anglers to monitor and recover several hundred fish stranded in the C&O Canal following the March Potomac River flood. Smallmouth bass, largemouth bass, sunfish, walleye, muskie, catfish, suckers, and carp were all recovered and returned to the river. During high water, these fish species seek refuge in the quieter waters in the canal. Unfortunately, many areas of the canal are cut off from the Potomac and the stranded fish may die as the canal dries. This was a coordinated effort to save as many fish as possible to preserve the resources of the Potomac River.
- Western Region Manager Alan Klotz participated in a multi-unit DNR meeting regarding the pending certification of State Forests as High Conservation Value Forests (HCVF). This certification program is the result of high consumer demands for paper and wood products from managed forestland that recognize the intrinsic values forests offer other than wood products. All blue-line stream riparian zones of at least 50-ft plus additional area for adjacent steeper slopes were classified as HCVFs. The forest managers also recognized the value of the brook trout populations within our state forests and were willing to work with Fisheries Service to provide additional protection in their management plans.
- Western Region District I Manager Alan Klotz provided information to the Western Region Land Stewardship Team regarding the potential state acquisition of the 99-acre Hine Property located adjacent to the Green Ridge Sate Forest within the Town Creek Watershed. This property lies immediately adjacent to existing state forest property purchased with natural heritage funds, valued for its pristine shale barrens and other significant ecological values. A pond exists on the

property and Fisheries can access it for future recreational fishing potential. The property has excellent potential public recreational access from an adjoining public road. Because of its easy access by public road, the property is extremely vulnerable to housing developments, which would degrade the significant ecological values of Green Ridge State Forest and the Town Creek Watershed.

Black Bass

- Western Region II biologist John Mullican provided a PowerPoint presentation on the status of the Monocacy River smallmouth bass population to the Monocacy Scenic River Advisory Board. Smallmouth bass reproductive and general fish health studies were covered, as well as the 2009 fish kill, intersex, and the recent smallmouth population estimates. The spring 2009 fish kill is largely thought to be responsible for the 65% decline in adult smallmouth bass from 2008 to 2009.
- Western Region II staff prepared informational posters explaining Potomac River fish sampling methods/locations and presenting long-term smallmouth bass population data for the April Open House. The Open House meeting has proven to be an effective format to effectively convey regulation proposals and other fishery related information to the public and solicit comments.

Black Bass/Tiger Musky

- The Restoration & Enhancement Program has proposed to team up with the University of Maryland Center for Environmental Science Aquaculture and Restoration Ecology Laboratory (AREL) at Horn Point to conduct culture trials with tiger musky and largemouth bass larvae in order to gain insight into potential improvements to DNR culture protocols. This work is still in the planning stage but staff hopes to begin this spring.

  Current resources at DNR facilities preclude rigorous research activities but AREL is well-equipped to perform this type of work. In 2010, staff will procure fertilized tiger musky eggs and produce largemouth bass larvae through traditional pond spawning and experimental tank spawning. They will send larvae to AREL for research on larval feed training and reduction in severity of cannibalistic behavior under high density, intensive culture conditions. An additional research component will investigate optimal tank spawn protocols for largemouth bass.

  Literature review and anecdotal information suggest that no single strategy is effective at any one production facility. Protocols that are effective at a hatchery in one state can be completely ineffective at hatcheries in other states, for example. Staff seeks to establish baseline data that will lead us toward development of protocols to increase larval conversion to hatchery diets and minimize cannibalism.

  Trials will attempt to test the following hypotheses:

1. H_o: Ambient light has no effect on incidence of cannibalism
2. H_o: Water clarity has no effect on feed training to hatchery diets or incidence of cannibalism
3. H_o: Culture tank water depth has no effect on incidence of cannibalism
4. H_o: Rearing density has no effect on feed training to hatchery diets or incidence of cannibalism

Trials will therefore assess fish culture performance under high light levels v. low light levels, turbid water v. clear water, shallow water v. deep water, and low-density v. high-density.

Additionally, staff will work with AREL to investigate methods to increase conversion to hatchery diets for larval fish. AREL staff has the expertise and resources to adequately design and conduct appropriate experiments regarding fish nutrition.

The second research component will investigate improved techniques to efficiently tank spawn largemouth bass adults. Manning Hatchery previously conducted tank spawn trials but this facility lacks sufficient resources to conduct year-long, robust assessment of discrete treatments. This research could assess parameters such as minimum spawning tank area or water volume, spawning substrate preference, maturity conditioning and spawning hormone effectiveness.

Trout

- Manning and Unicorn Hatcheries were finally able to stock trout that were held over for winter growout. Unprecedented snow and prolonged ice cover, both at the hatcheries and at the receiving waters, caused repeated delays, but staff was finally able to stock the trout for anxious anglers.
- Western Region II biologists John Mullican and Josh Henesy met with representatives of MDE and the Frederick County Environmental Compliance Section to discuss sediment pollution entering High Run, a native brook trout stream and a MBSS sentinel site. The town of Thurmont, which owns the property, is having the timber harvested. Increased heavy traffic by logging equipment on the existing access road and poor sediment control practices resulted in significant erosion and sedimentation. It was determined that Frederick County has jurisdiction in this case and has since moved to rectify the problem.
- Western Region II biologist Mark Toms met with the Frederick County Parks and Recreation Department to discuss establishing a new delayed harvest trout fishing area on a section of Catoctin Creek that runs through a new park they are developing. Inland Fisheries will continue to work with the Parks and Rec. Dept. to provide additional fishing opportunities.
- Field and hatchery personnel worked overtime during March to catch up on trout stocking delays caused by bad weather in February. As the weather improved, anglers became quite anxious to begin fishing. By opening day on March 27, all areas had received regular and pre-season stocking, and reports from anglers have been positive. The only downside to spring trout season was that bad weather

stressed some of the areas with increased siltation and altered water quality. One area, Lake Waterford in Anne Arundel County, experienced a fish kill due to low oxygen conditions. Inland Fisheries staff is working with local officials and the Department of the Environment to try to alleviate future problems in the lake.

- Inland staff members Susan Rivers, Alan Heft, Mark Staley, Matt Sell, and Alan Klotz attended the Trout Unlimited's Annual Chesapeake Bay Coldwater Summit at the National Conservation Training Center in Shepherdstown, WV. Several presentations from various conservation groups highlighted projects that are being conducted to improve or restore brook trout habitat in the mid-Atlantic region. Laura Haynes, representing the Savage River Watershed Association, presented the Frostburg Pond by-pass project that will improve brook trout habitat conditions in the upper Savage River.

Aquaculture Facilities

- Western Biologist Mike Dean discussed rearing trout for whirling disease testing on a long-term basis with Jim Ashby of Mettiki Coal LLC. Water would be siphoned Mettiki"s clarifier and fish reared in a 200 gallon tank. Fish will be tested periodically until fall of 2010.
- Manning Hatchery staff attended a pre-bid meeting with Department of General Services, and contractors for a major drain and pond rehabilitation project. Project will include lining all existing drainlines, and replacing all drain valves, as Manning Hatchery has been experiencing numerous failures in recent years. Most of these items have a 25-year service life, and are currently outdated by at least 5 years. Project also includes installing hypalon liners in 4 of our ponds, as well as in the water supply reservoir, to remedy severe leakage issues. The work is to be preformed in two stages, allowing staff to shift production back and forth, in an effort to minimize disruption to the production activities.
- Manning, Unicorn and Matapeake staff installed a swirl separator on our 20', 7,000 gallon, recirculating aquaculture system. The "The Poop Swirler", as it is affectionately known, is the perfect melding of art and science, born in the fevered mind of Chuck Stence, and brought to life by the talented toiling of Unicorn's Jeff Dilling and Jerry Stivers, veritable Rembrandts in the fiberglass fabrication realm. The separator allows fish wastes to fall out of suspension and be removed before entering the bead filter, reducing the organic load on the system.

American and Hickory Shad

- The Anadromous Restoration staff has proposed changes to the Shad Restoration Project:
  Background - Staff previously documented progress with shad restoration in Maryland from 1994-2005. Beginning in 2006 however, most Atlantic Coast states began to observe increased mortality in American shad stocks. It is hypothesized that mortality is occurring to out-migrating young-of-year shad or sub-adults in coastal waters. It appears that Maryland shad have been impacted by this mortality in Maryland since restoration indicators have been trending negatively over the past several years in at least one of target tributary – the

Patuxent River. The Choptank River is another target tributary that continues to exhibit positive trends. Marshyhope Creek trends are indistinct at this time. Project biologists have discussed the most responsible course of action considering recent developments and analysis of the 2009 data.

Proposals –

1) Temporarily suspend stocking in the Patuxent River and Marshyhope Creek and will apply all project resources towards stocking and monitoring in the Choptank River. This will permit maximum stocking impact and more detailed analysis and assessment activities. Field sampling efforts will be increased in the Choptank River from the current level of effort.

2) Add a research component to attempt to estimate absolute abundance of adults in the target tributary. Currently, the only metrics available to assess adult populations are relative abundance estimates from electrofishing and limited origin analysis of hatchery: wild composition. Population abundance estimates will permit more accurate assessment of project success. Limited monitoring of adults and juveniles will continue in the Patuxent River in order to maintain trend data. Staff plans to operate the project under these terms for a period of five years (2010-2014). This will allow sufficient time for most stocked larvae and juveniles to recruit to the Choptank River spawning population.

3) Staff will evaluate the efficacy of this approach each year. Subsequent to the five-year period, staff will determine whether it is appropriate to resume stocking in the Patuxent River or Marshyhope Creek.

Atlantic Sturgeon

- Anadromous Restoration staffers continued the experimental husbandry of sub-adult and adult Atlantic sturgeon for future culture and restoration efforts. DNR maintains a captive brood stock population that could be utilized to conduct hatchery-based restoration under the guidance of a recovery plan for Maryland. In addition to providing a future source of eggs and larvae, these fish are a valuable research tool and used to investigate gamete maturation, spawning physiology, sex identification, fish health and pathology, gamete cryopreservation, population genetics, nutrition, culture, and marking.
- In February, Anadromous Restoration staffers responded to several reports of Atlantic sturgeon captures. The Atlantic Sturgeon Reward Program pays commercial fishermen for each live sturgeon reported to the program. Nine of the sturgeon were deemed suitable for broodstock introduction and were transported to AREL, which currently houses 66 wild adult and sub-adult Atlantic sturgeon in ponds and indoor tanks.

Outreach & Education

- Eastern Regional Staff investigated reports of the possible closing of Stemmers Run Reservoir (90 acres) by the US Army Corp of Engineers (USACE). Stemmers Run and the surrounding property are owned by the USACE and were once used as a spoil site for materials dredged from the Elk River/C&D Canal waterway. The reservoir currently provides excellent fishing for largemouth bass, black crappie and bluegill. In-stream habitat work and supplemental stockings

have been used to create this popular fishery over the past few years. The property and other C&D Canal Lands are licensed and managed by DNR's Wildlife and Heritage Service for public use. Hunting and fishing activities on these properties are quite popular. Unfortunately, the public abuses these areas, with illegal trash dumping and off-road vehicle use being the most common that damage the properties. Future use at the facility is currently unknown, but recent construction activities at the Stemmers Run by the USACE have complicated usage. New "No Trespassing" signs have been posted, and a steel gate was installed at the entrance. When asked, USACE contractors on the site have stated that the facility will be closed to public access in the future. Fisheries personnel will continue to monitor the situation and will attempt to work with the ACOE.

- Western Biologist Mike Dean spoke to Mr. Witt of Barrelville Outdoor Club and Mr. Williams of Piney Mountain Sportsman's Club in reference to create angling opportunities for disabled veterans under the Sportsmen for Heroes Program.
- Western Biologist Mike Dean met with staff from the Department of Juvenile Services to investigate the placement of another aquaculture and environmental sciences classroom at a youth facility in Garrett or Allegany County. This future facility would be modeled after a facility completed in 2009 in Garrett County. The development of these facilities uses watermen from the Chesapeake Bay to complete construction, while providing them with work in these tough economic times.
- Manning Hatchery staff gave a tour of the facility and operations to a Maryland-National Capital Park and Planning Commission (M-NCPPC) youth group, as part of their Spring Break Camp.
- Inland Fisheries staff spoke to a class from the US Fish and Wildlife Service National Conservation Training Center (NCTC) on Fisheries Management. John Mullican spoke on site to a class of NCTC students about the Beaver Creek restoration and habitat improvement projects and their positive effects on the efforts of Inland Fisheries in establishing a self-sustaining brown trout population. Fishery survey methods and results were also discussed. Susan Rivers gave a presentation on the functioning of the Albert Powell Trout Hatchery, its function in fish protection and restoration, and the need for biosecurity both in aquaculture and in field operations. Participants in the class are federal employees gaining job education and field trips provide practical experience that cannot be learned in a classroom.
- Western Region I Manager Alan Klotz was a guest speaker at Northern Garrett High School's Environmental Science Class. He took in a sample of live stream macro-invertebrates and the students were able to sort and view – mayflies, stoneflies, caddisflies, and even a few ill-tempered crayfish. The students were also given an internal and external anatomy lesson on a rainbow trout. Educating the youth builds appreciation of outdoor resources in future generations.
- Western Region Manager Alan Klotz continued to work with the US Army Corps of Engineers (USACE) Jennings Randolph Lake Project Manager Karl Hakala to increase fishing access in the North Branch Potomac River adjacent to the Senator Sarbanes River Access Trail. The USACE agreed to a 400-foot upstream expansion of the existing Catch and Return Trout Fishing Area. This suggested

increased fishing opportunity will be presented to the public at our Inland Fisheries Open House meetings during April.

Yellow Perch

- Anadromous Restoration in cooperation with USFWS and University of MD successfully spawned wild collected yellow perch egg chains. The yellow perch will be used in a study to investigate the effects of elevated salinity on spawning habitats and spawning success. These studies have been prompted over concerns of excessive road salt applications over winter months and the resulting effect on this species.

Children's Rodeos

- Fish stocking for children's rodeo events began late in March. Western Region II staff visited two ponds scheduled for rodeos later in the spring and applied Aquashade to reduce vegetation in the water. By the time the events are scheduled, the vegetation will be reduced or gone, improving dissolved oxygen in the water to keep the fish healthy and making it easier for the children to fish safely.

Invasive Species

- Inland Fisheries staff monitored and replenished wader wash stations across the state to help prevent the spread of the invasive algae *Didymosphenia geminata*. Western Region II staff installed new stations on areas where spread is likely. This alga seems to be spread on felt-bottomed waders and special trout management areas are particularly vulnerable. The Invasive Species Matrix Team (ISMT) with DNR is considering a regulation in the future to restrict or ban the use of felt soled waders in Maryland. By 2011, several manufacturers plan to stop selling these boots. Inland Fisheries and the ISMT are also revisiting the design of the stations. The open design of the washing trough makes it difficult to keep the salt solution from being diluted by snow and rain, and small creatures can fall in and drown. A new closed design is being considered.

Routine Operations

- Unicorn Hatchery Manager Sid Compton will be retiring from DNR after nearly 40 years of dedicated service. We wish him well, but we will miss him.
- Snowmelt and heavy rain caused flooding in the basement at the Lewistown Work Center office. The basement was pumped out, but many items were damaged or ruined. Among the casualties were educational materials for children's fishing rodeos and posters used for Open House events.

Savage River Reservoir Dam Repair Update

- The final replacement of the gates within the Savage River Dam has been completed! Some minor work in the tunnel is being done, but the Savage River Dam should be fully operational by early April.
- Western Region staff conducted sediment deposition measurement along four transects in the Savage River Tailwater in early March. The amount of sediment

deposition was tremendous – staff measured two areas – three feet thick of fine organic and sand deposition. Embeddedness in riffle areas were about 50 – 75%. Staff also documented live fish (sculpins, white suckers, and trout) in the river – these sure were tough fish!

- By mid-March, the snowpack and a rain event filled the reservoir rather quickly, and about 4,500 cubic feet per second of water flowed over the spillway and into the Savage River Tailwater. Flows have remained rather high – but staff observations are very optimistic. It appears that most of the accumulated sediment has been flushed through the system.
- Staff will re-measure sediment deposition and embeddedness once flows are reduced in April. They also plan to conduct some electrofishing at this time to do a quick evaluation on the river's trout population. As of now, the river is flowing much clearer than it has since the draining of the reservoir.

Jennings Randolph Lake Hydro-electric Facility Proposal

- Western Region District I Manager Alan Klotz participated in a teleconference with Shawn Seaman of MD DNR Resource Assessment Service, Steve Shreiner of Versar, Inc, and Kerry Bledsoe of WV DNR to discuss final comments on this proposal. To view the final comment document for this Filing, see: http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20100329-5178